



DEFECT & INVESTIGATION CENTRE

FOR ACTION BY:

Chief Executive of each HSS Trust
General Manager/Chief Executive of each HSS Board
General Manager/Chief Executive of each Agency

Stoney Road Dundonald Belfast
Northern Ireland BT16 1US

Telephone 028 90 523714
Facsimile 028 90 523900
GTN Code 440

HN(NI) 2000/11

Date: 13 June 2000

Product	:	UNINTERRUPTIBLE POWER SUPPLY (UPS) UNIT POWERLINE MK33 30kVA 3 PHASE
Manufacturer/ Supplier	:	EMERGENCY POWER SYSTEMS
Problem	:	POSSIBLE FAILURE IN SERVICE
Action	:	THE RECENT FAILURE OF A UPS SUPPLYING ELECTRICAL POWER TO AN INTENSIVE THERAPY UNIT (ITU) HAS HIGHLIGHTED THE NEED TO REVIEW AREAS OF USE. IF THESE UNITS ARE USED TO SUPPLY PATIENT CRITICAL AND LIFE-SUPPORT EQUIPMENT THE CONSEQUENCES OF THEIR FAILURE ARE POTENTIALLY VERY SERIOUS.

HAZARD

1. ATTENTION CHIEF EXECUTIVES/GENERAL MANAGERS

This notice should be brought to the immediate attention of all who need to know, or be aware of it including those listed below, in accordance with local procedures, and immediate action should be taken as detailed aside:

- General Managers
- Electronics Staff
- Laboratory Staff
- ITUs
- Maintenance Staff
- Authorised Person (LV)
- Safety Liaison Officers
- Estate Managers
- Computer Staff
- Device Managers
- Medical Physics Staff
- IT Managers
- Risk Managers

Boards/Trusts should ensure that if appropriate, this information is passed to **ALL** persons having the responsibility for premises registered under "THE REGISTERED HOMES (NI) ORDER 1992".



An Executive Agency of the Department of Health
and Social Services and Public Safety

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2. IMMEDIATE ACTION

Existing UPS installations should be checked for the following:

- The critical nature of the installation and the type of UPS unit installed.
- Presence of short circuit protection fitted to the UPS unit.
- Presence of a manual bypass switch on the UPS unit.
- Not full reliance for patient critical or life support equipment on a UPS unit only.
- Monitoring and maintenance procedures for the UPS installations.
- Standby facilities for the UPS unit (passive standby or automatic failsafe bypass).
- Setting of static bypass transfer switch for mains voltage and frequency.
- Ensure UPS units do not supply combinations of critical and non-critical equipment.

3. BACKGROUND

The Department has received a report of a failure of an Uninterruptible Power Supply (UPS) unit supplying electrical power to an Intensive Therapy Unit (ITU) in a Scottish Hospital. This has highlighted the need to review areas of use.

A short circuit fault occurred on the output from the UPS, possibly caused by the commissioning of a new bed space within the ITU.

The short circuit caused the UPS unit to shut down. At this point the static bypass transfer switch should have instantly transferred the load to the hospital's normal electrical supply. However the transfer switch failed to operate and power to the ITU was lost.

Initial findings indicate that a short circuit on the output from the UPS unit caused total failure and loss of electrical power supply. Such a result might have been predicted as the UPS unit was not fitted with short circuit protection.

If these units are used to supply patient critical and life-support equipment the consequences of their failure are potentially very serious.

4. ENQUIRIES

Enquiries regarding this notice should be addressed as follows:

NORTHERN IRELAND DEFECT & INVESTIGATION CENTRE (NIDIC)

Health Estates

Estate Policy

Stoney Road

Dundonald

Belfast BT16 1US

marked for the attention of Mr Brian Godfrey

Tel: 028 90 523714

Fax: 028 90 523900

Email: brian.godfrey@dhsspsni.gov.uk

Yours faithfully

BRIAN GODFREY

Defect Centre Manager

HOW TO REPORT DEFECTS

Professional Estate Letter PEL(93)36 issued by Estate Services Directorate, on 27th July 1994 advises Health and Social Services Boards, HSS Trusts and agencies how to notify HPSS about accidents with and defects in medicinal products, buildings and plant and other medical and non medical equipment and supplies.



HN(NI)2000/11

HAZARD

Title:

UNINTERRUPTIBLE POWER SUPPLY (UPS) UNIT

ACTION BY:

(A) BOARD/TRUST

Address/Address Stamp

This document was forwarded to the relevant Department/Personnel for action on _____ (date)

(B) RECIPIENT [Please return to the Issuing Authority at **(A)** above, after completed action]

Receipt of the document is acknowledged and appropriate action completed on _____ (date)

Signature _____ Position

Name (please print)

Address

(C) COMMENTS ON ACTION TAKEN